

IN THE SPECIFICATION

Please amend the paragraph beginning at page 11, line 11, as follows:

To cope with these problems, the simulation system 100 expands a calculation area as shown in Fig. 7, if the calculation area is improper for the relatively simple boundary conditions such as the mirror, fixed, and periodic boundary conditions. For the left and right parts of the expanded calculation area, the simulation system 100 sets boundary conditions that involve simple calculations. Namely, the simulation system 100 generates a new calculation area based on an original calculation area, to correctly calculate an external influence on the original calculation area, and displays the new calculation area for the user. In Fig. 7, the original calculation area set for, for example, an ion implantation simulation is expanded by a length L on each side. The length L of each expanded area is expressed as follows:

$$L = l * \tan\theta \tan^2$$

where "l" (a lowercase el) is the height of the original calculation area and " θ " " 2 " is an ion incident angle. If an ion penetrating depth is known, the length L is expressed as follows:

$$L = l * \tan\theta \tan^2 * k + m$$

where k is the ratio of the ion entering depth to the height "l" and "m" is a margin. These expressions are useful to properly determine an expansion area, to minimize an increase in a computation time due to the expanded calculation area.